

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-8 (Canceled).

Claim 9 (Currently Amended): An arc monitor system, which ~~is used to locate an occurred place where~~ determines a location of an arc discharge ~~occurred~~ occurring in an electric facility, comprising:

a plurality of monitor ~~cameras that are~~ cameras, arranged at a plurality of ~~places~~ locations in the electric facility, ~~that capture images;~~

an image processing ~~device~~ unit that ~~individually~~ processes images received from the monitor cameras;

a control logic ~~section~~ unit that controls the image processing ~~device~~ unit; and

an operation ~~device that has~~ unit, including a display section and an operation section, ~~and that is connected to the control logic section unit,~~

wherein the image processing ~~device~~ unit and the control logic ~~section~~ unit extract a change in the images ~~received from~~ captured by the monitor cameras in response to a control signal generated from the electric facility on an occurrence of the arc discharge, and ~~then locate~~ determine the ~~occurred place~~ location of the arc discharge as a two-dimensional coordinate based on the images captured by the monitor cameras.

Claim 10 (Currently Amended): The arc monitor system according to claim 9, wherein the image processing ~~device~~ unit and the control logic ~~section~~ unit, on recognizing and extracting the arc discharge, ~~successively~~ process a plurality of successive frames of the image ranging from a frame obtained before the occurrence of the arc discharge to a frame

obtained after an extinction of the arc discharge, obtain a level and a center of gravity of the arc discharge in the successive ~~images~~ frames, and observe transitions of the level and the center of gravity of the arc discharge, thereby ~~locating~~ determining the location of the ~~occurred place~~ occurrence of the arc discharge.

Claim 11 (Currently Amended): The arc monitor system according to claim 9, wherein:

the monitor cameras are arranged ~~to allow~~ such that all ~~places~~ locations in the electric facility ~~to be~~ are imaged by at least two of the monitor cameras; and

the image processing ~~device~~ unit and the control logic ~~section~~ unit, on the occurrence of the arc discharge, ~~combine places located by~~ process the images captured by at least two of the monitor cameras ~~cameras, thereby calculating~~ to calculate the ~~occurred place~~ location by triangulation.

Claim 12 (Currently Amended): The arc monitor system according to claim 9, wherein each of the monitor cameras includes a near-infrared camera that captures an image ~~by~~ with near-infrared light ~~obtained by removing visible light~~.

Claim 13 (Currently Amended): The arc monitor system according to claim 9, wherein the image processing ~~device~~ unit and the control logic ~~section~~ unit observe a change in a remaining heat energy of the arc discharge immediately after the occurrence of the arc discharge.

Claim 14 (Currently Amended): The arc monitor system according to claim 9, further comprising:

an image switching ~~device that is~~ unit connected to the image processing ~~device~~ unit;
and

an image recording ~~device~~ unit and a monitor ~~that are~~ connected to the image
switching ~~device~~ unit,

wherein the ~~occurred place~~ location of the arc discharge ~~located~~ determined by the
image processing ~~device~~ unit and the control logic ~~section~~ unit is displayed on the monitor
and the operation ~~device~~ unit as a plan view, and is simultaneously recorded in the image
recording ~~device~~ unit.

Claim 15 (Currently Amended): The arc monitor system according to claim 9,
wherein each of the monitor cameras includes a panning ~~camera that is turned toward~~ camera,
the panning camera turns in the direction of the ~~occurred place~~ location of the arc discharge
when the ~~occurred place~~ location of the arc discharge is ~~located~~ determined, and ~~then~~
captures an image immediately after the occurrence of the arc discharge.

Claim 16 (Previously Presented): The arc monitor system according to claim 9,
wherein the electric facility is a substation.

Claim 17 (New): An arc monitor system, which determines a location of an arc
discharge occurring in an electric facility, comprising:

a plurality of monitor cameras, arranged at a plurality of locations in the electric
facility, that capture images;

an image processing unit that processes images received from the monitor cameras;

a control logic unit that controls the image processing unit; and

an operation unit, including a display section and an operation section, connected to the control logic unit,

wherein the image processing unit and the control logic unit extract a change in the images captured by the monitor cameras in response to a control signal generated from the electric facility on an occurrence of the arc discharge, and determine the location of the arc discharge; and

wherein the monitor cameras are arranged such that all locations in the electric facility are imaged by at least two of the monitor cameras; and

the image processing unit and the control logic unit, on the occurrence of the arc discharge, process the images captured by at least two of the monitor cameras to calculate the location by triangulation.

Claim 18 (New): An arc monitor system, which determines a location of an arc discharge occurring in an electric facility, comprising:

a plurality of monitor cameras, arranged at a plurality of locations in the electric facility, that capture images;

an image processing unit that processes images received from the monitor cameras;

a control logic unit that controls the image processing unit; and

an operation unit, including a display section and an operation section, connected to the control logic unit,

wherein the image processing unit and the control logic unit extract a change in the images captured by the monitor cameras in response to a control signal generated from the electric facility on an occurrence of the arc discharge, and determine the location of the arc discharge; and

wherein the image processing unit and the control logic unit observe a change in a remaining heat energy of the arc discharge immediately after the occurrence of the arc discharge.

Claim 19 (New): An arc monitor system, which determines a location of an arc discharge occurring in an electric facility, comprising:

a plurality of monitor cameras, arranged at a plurality of locations in the electric facility, that capture images;

an image processing unit that processes images received from the monitor cameras;

a control logic unit that controls the image processing unit;

an operation unit, including a display section and an operation section, connected to the control logic unit,

wherein the image processing unit and the control logic unit extract a change in the images captured by the monitor cameras in response to a control signal generated from the electric facility on an occurrence of the arc discharge, and determine the location of the arc discharge;

an image switching unit connected to the image processing unit; and

an image recording unit and a monitor connected to the image switching unit,

wherein the location of the arc discharge determined by the image processing unit and the control logic unit is displayed on the monitor and the operation unit as a plan view, and is simultaneously recorded in the image recording unit.

Claim 20 (New): The arc monitor system according to claim 9, wherein the monitor cameras are arranged in pairs that are orthogonal to one another.

Claim 21 (New): The arc monitor system according to claim 9, wherein the location of the arc discharge is determined on a coordinate system on a plan view.

Claim 22 (New): The arc monitor system according to claim 9, wherein the location of the arc discharge is determined by calculating an intersection of vectors extending from two monitor cameras that detect the arc discharge, the intersection being the location of the arc discharge.